

Integral Urban Project and Safety. Building barriers or bridges?

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Introduction and background

The notion that the physical environment can either increase or reduce the opportunities for crime is not new. Internationally, it has been studied extensively over a number of decades. There is general consensus that if the environment is planned, designed and managed appropriately, certain types of crimes can be reduced. Environmental design has formed an integral part of many crime prevention initiatives in countries such as the UK, USA, Canada, The Netherlands and Australia. The environment can also play a significant role in influencing perceptions of safety. Certain environments can impart a feeling of safety, while others can induce fear, even in areas where levels of crime are not high. In this regard, planning and design measures can be utilised very successfully to enhance feelings of safety in areas where people feel vulnerable.

The study of the relationship between crime and the physical environment has resulted in various theoretical approaches and a number of schools of thought have emerged since the early 1960's. Some of the more familiar approaches include Crime Prevention through Environmental Design (CPTED), situational crime prevention and place-specific crime prevention. The CSIR Built Environment³⁸ bases their work on a South African interpretation of international approaches as well as research conducted locally, and has defined the concept as follows:

Crime prevention through environmental design aims to reduce the causes of, and opportunities for, criminal events and address the fear of crime by applying sound planning, design and management principles to the built environment³⁹.

Different approaches to crime prevention in the built environment

Despite broad similar goals encompassed in the different approaches, *environmental design to prevent crime* as an overarching meta-concept, has given rise to different manifestations in practice. Two broad streams can be distinguished, namely an integrating and a segregating approach. Although they are discussed as two separate streams/approaches, the distinction is not always clear in practice, resulting in some practitioners or institutions implementing aspects from each. It is not always possible to completely categorize certain authors / theorists into one of these two groups but rather point out a tendency to lean towards the one or the other, either in general or related to a specific publication. This may often be due to the over-emphasis of some of the principles in a specific context or situation. These two approaches will be discussed briefly⁴⁰.

³⁸ The CSIR (Council for Scientific and Industrial Research) is a science council in South Africa that operates through grant funding from government and contract research. The council covers a wide spectrum, including units such as Materials and Manufacturing, Nature, Resources and the Environment and the Built Environment. CSIR Built Environment focuses on research and interventions in the built environment.

³⁹ Kruger, T., Landman, K. and Liebermann, S. *Designing Safer Places: a manual for Crime prevention through planning and design*. Pretoria, CSIR, 2001.

⁴⁰ This discussion is based on a paper entitled "Boundaries, bars and barricades: reconsidering a segregated approach to crime prevention through environmental design", submitted to *The Journal of Architectural and Planning Research*, 2005 by K. Landman.

Integrating approach

An integrated approach to crime prevention in the built environment is broadly based on interventions that support the establishment of an open, incorporating and assimilating urban environment to reduce conflict through association and cooperation. This is to be achieved through a number of principles and interventions. The principles that generally accommodate an integrated approach include surveillance, visibility, image and aesthetics and symbolic thresholds. These principles can be achieved through a range of interventions in the built environment including through mixed land-use, 24 hour use, celebration of the street, higher densities through appropriate built form and building typologies, accessible, smaller parks, symbolic rather than actual boundaries, the right psychological signals and open and pedestrian friendly roads and sidewalks with entrances on the streets and buildings overlooking the public space⁴¹.

Segregating approach

A segregated approach to crime prevention in the built environment support interventions that emphasise the strengthening of boundaries and the separation of areas in the urban environment to reduce opportunities for conflict and/or friction. This is to be achieved through a number of principles including the minimisation of the degree of shared public space inside residential areas, territoriality and defensible space, target hardening and access control. These principles can be achieved through a range of interventions in the built environment including hard boundaries between public and private spaces, single use territories, separation of land uses, target hardening measures such as high fences, secure gateways, steel shutters and burglar bars, and measures of access control such as restricted road access, avoidance of through pedestrian routes in neighbourhoods, limiting multiple access points, CCTV cameras, parking lot barriers, entry phones, PIN numbers and visitor check-in booths⁴².

Tensions and outcomes in practice

There are examples where interventions based on both these approaches have reduced opportunities for crime in the built environment. Despite this, more research is necessary to confirm the effect of both of these on crime. However, it is not only the effect on crime prevention that should be considered. The question is what are the impact and implications of these approaches in practice? From the previous section it is not surprising that there would be an increase in tensions between proponents of different approaches as many of the principles and interventions often are in direct contradiction to each other. In addition, the outcome has also been different. The segregated approach has given rise to increasing fortification in cities and as such has been criticised by many writers⁴³, including leading

⁴¹ Jacobs, J., *The life and death of great American cities*. New York: Vinatge Books, 1961; Hillier, B., "Against Enclosure" in Teymeur, N., Markus, T., and Wooley, T., (eds). *Rehumanising Housing*. London: Butterworth, 1988; Wekerle, G. R., and Whitzman, C., *Safe Cities: Guidelines for Planning, Design and Management*. New York: Van Nostrand Reinhold, 1995; Shaftoe, H., "Planning for crime prevention" in Creed, C. and M. Roberts (eds.) *Introducing Urban Design: Interventions and Responses*. Longman Publishers, 178 -187, 1996.

⁴² Newman, O. *Defensible Space: Crime Prevention through Urban Design*. London: MacMillan, 1972; Poyner, B., *Design against Crime- Beyond defensible space*. London: Butterworths, 1983; Coleman, A. (1985). *Utopia on Trial: Vision and Reality in Planned Housing*. London: Hilary Shipman, 1985; Poyner, B., and Webb, B., (1992). *Crime Free Housing*. Oxford: Butterworth Architecture, 1992; Sorenson, S.L., Walsh, E. and Myhre, M., *Crime Prevention Through Environmental Design in Public Housing*. Prepared for the US Department of Housing and Urban Development (HUD), Washington DC. (1998).

⁴³ Including Davis, M., "Fortress Los Angeles: The Militarization of Urban Space", in Sorkin, M., (ed.) *Variations on a Theme Park: Scenes from the New American City and the End of Public Space*. Hill and Wang, 154-180, 1992; Flusty,

CPTED protagonists. An overemphasis on law enforcement and target hardening measures can lead to a "fortress mentality" and the creation of a "fortress city"⁴⁴ and may also raise levels of fear⁴⁵.

An over-emphasis on the segregation approach has contributed to rising tensions in the UK between the "Safer by Design" policies (promoted by the police), where the emphasis on target hardening and access control, and the "inclusive neighbourhood" strategies (promoted by the Social Exclusion Unit 2002), that is aimed at addressing social exclusion in cities. There are also signs of similar tensions emerging in South Africa.

Application of different approaches in South Africa

Integrating approach

Warwick Avenue Triangle urban regeneration project is an example of an integrated approach to CPTED in South Africa. It is located around the main public transport interchange in Durban city centre and aimed to provide an improved level of service to the 400 000 commuters who pass through there on a daily basis. The 2 000 taxis and 70 000 train and buses that use the area daily are serviced by some 8 000 kerbside traders. Through the project, the eThekweni municipality has invested R40 million in the area in creating what is classified as 'community wellness'. The projects range from supporting small entrepreneurs like traditional herbalists, healers and food suppliers, to the planning, design and implementation of physical infrastructure including bridges, roof extensions and sanitation facilities located at and under the freeway system adjacent to the rail station. Great attention was taken in the planning and design of the area to be sensitive to the different histories and to include the diverse cultural needs, as well as to contribute to the safety of the commuters⁴⁶.

An intensive CPTED workshop was held in June 2000 to inform designers and other actors of the merits of incorporating CPTED into the urban renewal process. Consequently, many of these principles were incorporated in the various designs, for example mixed use areas around the market, well-designed market area and stalls for traders, design for passive surveillance (including a 'see-through' pedestrian bridge to the station), well-designed pedestrian routes to link public spaces and model interchanges, appropriate street lighting, and 24 hour use in some areas. Violent deaths have reduced tenfold since the project commenced: at project commencement more than 50 violent deaths, excluding taxi related incidents were reported annually; in 2003 five deaths were reported⁴⁷.

Segregating approach

Unlike the previous group, there are a great number of projects that incorporate a segregated approach to CPTED in South Africa. Some of the most extreme among these are the so-called gated communities. Gated communities in the country can broadly be categorised into two main groups, namely enclosed neighbourhoods and security villages. *Enclosed neighbourhoods* refer to existing neighbourhoods that have been fenced or walled in and where access is

S., "Building Paranoia", in Ellin, N (ed.) *Architecture of Fear*. New York: Princeton Architectural Press, 1995; Blakely, E.J., and Snyder, M.G., *Fortress America: Gated Communities in the United States*. Washington, D.C. Brookings Institution Press, 1997; and Tiesdell, S., and Oc, T., "Beyond 'fortress' and 'panoptic' cities - towards a safer urban public realm", *Environment and Planning B: Planning and Design*, 25: 639-655, 1998.

⁴⁴ Weckerle and Whitzman, 1995, op.cit.

⁴⁵ Shaftoe 1996, op.cit.

⁴⁶ Dobson, R. "Warwick Junction Upgrade, eThekweni". Presentation delivered at the Crime Prevention Alliance and Open House Society Conference on Crime Prevention in South Africa, 2-3 December 2003, Cape Town. Richard Dobson is the project architect responsible for the implementation of the physical interventions.

⁴⁷ Dobson 2003, op. cit.

controlled or prohibited by means of gates or booms that have been erected across existing public roads. *Security villages and complexes* are private developments that are planned and designed to be physically barricaded from the surrounding neighbourhood. They include secure townhouse complexes, office parks, and large security estates that combine a residential component with commercial and recreational facilities including small shops, golf courses, tennis and squash courts and even amenities such as schools and post offices. The physical nature of the different types of gated communities often differ; also in terms of the extent of target hardening and territorialisation. While some would only have a perimeter fence and remote controlled gates, others have extensive security measures, including electric fences, access controlled gates with 24 hour private security patrols and guards at the gate, as well as CCTV cameras⁴⁸.

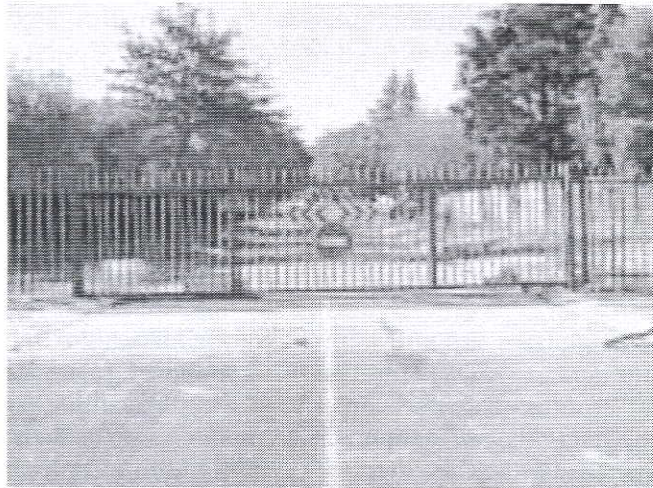


Photo 4: Physical barriers

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Impact and implications of the privatisation of urban space

While there has been a range of findings related to the proliferation of gated communities in South Africa, it became evident that the physical changes in the built environment had several impacts, including:

- A reduction in the degree of accessibility to public spaces and facilities available to all urban residents due to the creation of privatised super-blocks.
- A shift in traffic and movement patterns, displacing traffic (vehicular, cycle and pedestrian traffic) to busy arterials, causing traffic congestion, increased travelling times and increased vulnerability to non-motorised traffic, as well as increased noise and air pollution along these arterials.
- A reduction in the efficiency of service delivery due to problems for municipal service vehicles to access secure neighbourhoods, as well as technical problems such as insufficient turning spaces inside these neighbourhoods for large vehicles.
- A reduction in the response times of police and other emergency services, such as fire-trucks and ambulances, due to inaccessible roads or neighbourhoods.

⁴⁸ Landman, K. A National Survey of gated communities in South Africa. CSIR Publication. BOU/1 252, 2003; Landman, K. Gated communities in South Africa: Comparison of four case studies in Gauteng. Pretoria, CSIR Publication. BOU/1 347, 2004.

- An increased deterioration of roads due to less (inside) or more (outside) traffic making use of these roads than was originally designed for.

These impacts have huge implications for the daily use patterns and experiences of urban residents, as well as for the local municipalities in terms of the urban functioning and management. Gated communities therefore give rise to the privatisation of public space, services and governance to various degrees, depending on the type and contribute to segregation at three levels: physically, socially and institutionally⁴⁹.

Living in the enclaved society therefore creates a dilemma. On the one hand there is a desperate need for mechanisms to promote personal safety and a sense of security in South Africa. In many cases law enforcement initiatives are seen as unsuccessful to prevent crime or merely as not enough. Consequently residents respond in their own way, by applying for street closures or opting to move to security villages. This in turn stimulates the market demand for these types of developments. On the other hand, there is a need to consider the medium and long term impacts and implications of these extreme responses to crime in the built environment, including urban fragmentation and segregation, the privatisation of public space through access control and the violation of constitutional / human rights when people are prohibited from enter what is technically still public space⁵⁰.

The question is therefore whether living in the enclaved society is likely to contribute to crime prevention in the city as a whole, or whether it will only reduce crime inside the enclaves and for how long? By hardening the target (neighbourhood) one may in fact violate other CPTED principles as relevant to the area outside the gates and fences. As such, one cannot only consider the safety of people living inside the enclaves, but need to look at CPTED, as well as local crime prevention from a more holistic perspective⁵¹.

Planning and designing safer environments: the process

Within the South African context, CPTED incorporates the following:

- physical **planning** and the planning approaches used at the strategic level;
- the detailed **design** of the different elements - for example, the movement system and the roads, the public open space system, individual buildings on their separate sites, etc., and
- the **management** of either the entire urban system or the different elements and precincts that make up the urban area⁵².

The manual, *Designing Safer Places* provides guidelines for the development of a local CPTED strategy that can be used by Local Authorities to implement CPTED in practice. Assessing and analysing crime and the environment through this process will lead to an understanding of crime in an area within the broader physical environment and assist in identifying the spatial characteristics of a particular crime location. There are many ways to apply CPTED principles and different mechanisms to implement strategies, programmes and projects on a

⁴⁹ Landman 2004, op. cit; Landman, K. Gated communities in South Africa: A review of the relevant policies and their implications. Pretoria, CSIR Publication. BOU/I 348, 2004; Landman, K. "Who owns the roads? Privatising public space in South African cities through neighbourhood closures". Prepared for and delivered at the Conference, Privatisation of Urban Space, New Orleans, 26-27 February 2004.

⁵⁰ Kruger, T. and Landman, K. (2003). "Living in an enclaved society: the practical implications of environmental design". Paper delivered at the Institute for Municipal Law Enforcement of Southern Africa (IMLE) Conference, The Reality of Law Enforcement: Facing common challenges to ensure Local Governance, 30-31 October 2003, Pretoria.

⁵¹ Kruger and Landman 2003, op. cit.

⁵² Kruger, Landman and Liebermann 2001, op. cit.

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⁵¹ Kruger and Landman 2003, op. cit.

⁵² Kruger, Landman and Liebermann 2001, op. cit.

local level. The process is therefore a guideline only and can be adapted to suit particular needs. This process consists of five activities, with a number of tasks under each of these:

Activity 1: Identify the crime problems

Activity 2: Assess the physical environment

Activity 3: Assess the social and institutional environment

Activity 4: Synthesise and analyse the information

Activity 5: Develop an appropriate response⁵³

This is not a linear process - many aspects of these activities should be addressed in an iterative and integrated manner.

Building barriers or bridges?

The emphasis of local crime prevention initiatives should therefore be on public participation to build bridges rather than on fortification that creates barriers. Relying too heavily on physical barriers against crime often causes fragmentation and segregation, and ultimately tension and conflict within the city. This highlights the importance of community participation in local crime prevention, both to identify the crime problems and hot-spots, and to understand the complexity of and assist in solving the problems. It has also shown that planning against crime is a local government function requiring partnerships between the police, the municipality, and the community they serve. To succeed, this approach to local safety will require integration at three levels:

- First, there is a need for crime prevention initiatives that are based on initiatives promoting **spatial integration**, including mixed-use, a celebration of the street and public spaces, higher densities through an appropriate built form, symbolic barriers and opportunities for natural surveillance. Mixed-use can furthermore be achieved by people using the same streets and the same facilities at the same time of the day. It also calls for the improvement of public spaces for all urban residents, including the reduction of derelict vacant land and the development of existing public spaces.
- Second, there is a need for **social integration** through inclusive participatory processes in which local residents take part in the identification and solution of their crime problems. This not only encourages local empowerment and social cohesion, but also provides a more accurate reflection of public needs as regards neighbourhood crime.
- Third, there is a need for **institutional integration**. In this respect, local development plans can be a valuable mechanism to guide the process and ensure that planning against crime becomes a reality in practice. When crime informs these plans by identifying locations for strategic interventions, greater integration can begin to occur. It will also help to make the development plans more responsive to people's priorities. This will also ensure that crime prevention responses take into account their impact on the surrounding neighbourhoods and the rest of the city⁵⁴.

⁵³ Kruger, Landman and Liebermann 2001, op. cit.

⁵⁴ Landman, K. and Liebermann, S. (2005). Planning against crime: Preventing crime with people not barriers. SA Crime Quarterly, 11 March 2005, Institute for Security Studies, Pretoria.

Given the need for communities to become involved in creating safer living environments, the question is whether the tendency to form enclaves is the most appropriate response. By closing off streets and erecting barricades around existing neighbourhoods, the CPTED principle of target hardening is applied at the cost of the other principles. It is suggested that a more effective and sustainable way of dealing with crime at a local level is through the implementation of a comprehensive, integrated community-based crime prevention strategy. This will ensure that crime prevention measures are implemented in a coordinated way so as to minimise the possible impact that interventions implemented in one area could have on other sectors of the community. Such a strategy should respond to local problems and the local context and should address crime problems holistically. The strategy should therefore be based on a detailed safety audit that involves a study of local crime problems and patterns, socio-economic conditions, local crime prevention capacity and the physical environment. The process outlined in the *Making South Africa Safe* manual provides a useful basis for the development of such a strategy⁵⁵. In order to ensure that local crime prevention initiatives are implemented in the most effective way, it is appropriate for local government to take the lead in developing the strategy. By taking up this responsibility, local government can ensure that the needs and fears of all citizens are considered and addressed. By including everyone in the development of a community-based crime prevention strategy, the need for people to enclave themselves will also be reduced, contributing to building bridges between communities rather than barriers.

⁵⁵Lieberman, S, K. Landman, A. Louw, and R. Robertshaw 2000, *op. cit.*